UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,361	03/26/2001	Gerald Christopher Bialek	200-0671	5301

28395 7590 06/15/2005

BROOKS KUSHMAN P.C./FGTL
1000 TOWN CENTER
22ND FLOOR
SOUTHFIELD, MI 48075-1238

EXAMINER	
CHOI, PETER H	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/681,361	BIALEK ET AL.	
	Examiner	Art Unit	
	Peter Choi	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 March 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

S.O.O. 7

DETAILED ACTION

1. Claims 1-8 are pending in the application.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:

- In Figure 2:
  - Reference characters "188a" and "188b" have both been used to designate the non-value-added activity occurring within the business continuum. According to the paragraph 14 of the specification, reference characters 118a and 118b should be used.
  - Reference character 126 has been used to designate Part Invoicing. According to paragraph 14 of the specification, the reference character is used to designate Vehicle Pricing.
  - Reference character 128 has been used to designate Part Pricing. According to paragraph 14 of the specification, the reference character is used to designate Vehicle Invoicing.
- In Figure 7:
  - Reference character 194 has been used to designate both the Accounting Department and the Receiving Department. According to the specification, the Receiving Department should use reference character 198.
- In Figure 9:

- Reference character 248 has been used to designate the Venn diagram. According to paragraph 35 of the specification, reference character 218 should be used.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because:

- In Figure 6:
  - Reference character 186 is not mentioned in the specification.
- In Figure 10:
  - Reference character 220 is designated to be the Venn diagram in the specification, but does not appear in the figure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon Everest's "Database Management: Objectives, System Functions, and Administration" (published in 1986) and further in view of Roychoudhury et al.'s "A Rule-Based Data Standardizer for Enterprise Data Bases" (published in 1997).

As per claim 1, Everest teaches a business method for reducing non-value-added data activity across a plurality of distributed business departments, the method comprising:

populating a data structure **(database)** with data sets generated at each of the plurality of distributed business departments **(collecting actual data and storing it)** [Page 198];

defining ownership, management, data source, data control **(data definition language {DDL}, which includes the definition of data items and repeating groups in a multipath hierarchical structure, giving each a unique name, a unique number, and defining the type and size of data items)**, access **(isolation, access control, encryption, monitoring and audit trail techniques)**, and data dependencies

(exhaustibility) attributes for each data set within the data structure [Pages 52, 210, 212, and 226-227];

aligning each of the distributed business departments' business processes and corresponding data requirements to the data structure data sets based on the attributes defined for each data set **(represent the data and its structure in a way that most naturally models the users' reality)** [Page 200]; and

Although not taught by Everest, Roychoudhury et al. teaches the step of eliminating data gaps, duplications, and inconsistencies within the data structure. Roychoudhury et al. teaches that the use and storage of incorrect, inaccurate, old, and redundant data provides no beneficial insights, as it prevents decision support, and undermines results. [Introduction – Pages 1-2]. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Everest to include the streamlining of data as taught by Roychoudhury et al. since efficient, accurate and up-to-date data would enable data mining and data warehousing to be performed, whereas the inclusion of incorrect, inaccurate, old, and redundant data adds to search time, wastes storage space, and any resulting analysis performed on such data would lack validity or usefulness

Official Notice is taken that the step of updating the alignment of the business departments' business processes (in response to changes in said business processes), corresponding data requirements (of the plurality of business departments), and

changes in the attributes defined for each data set is an old and well known result of data mining, as an analysis of the data from a plurality of different dimensions and angles allows the user to categorize data (into clusters), and summarize new relationships (or update old relationships) between data. As the business world is dynamically changing, the usefulness and validity of data and the relationships between data must be updated to reflect changes in business practices. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Everest and Roychoudhury et al. to include the step of updating the alignment of business processes, corresponding data requirements and data set attributes as it may allow the reality of the user to be accurately portrayed, and would validate the findings of further analysis (data mining or any other analytical methods).

As per claim 2, Everest teaches the method of claim 1 additional comprising compiling a glossary **(information system resource catalogue/data dictionary)** summarizing the data sets and corresponding attributes wherein the glossary is provided to the plurality of distributed business departments to facilitate the step of aligning each of the distributed business departments' business processes and corresponding data requirements to the data structure [Pages 601-605].

As per claim 3, Everest teaches the method of claim 1 additionally comprising defining a retention period **(useful life)** attribute for a data set wherein the data set is

deleted from the data structure upon expiration of the defined retention period [Page 603].

As per claim 4, Everest teaches the method of claim 1 additionally comprising the steps of defining an update frequency **(frequency of generation and change)** for a data set and updating content and attributes for the data set according to the defined update frequency [Page 603].

As per claim 5, Everest teaches a data structure embodied within a computer readable medium, the data structure comprising a plurality of data sets wherein each data set possesses the following attributes:

(a) ownership for defining a name of a person or organization who owns content embodied within the data set [Page 603];

(b) membership for defining data items **(purpose of the data item and why it is kept)** which make up the data set [Page 603];

(c) codification for defining terminology qualifying the data items **(interpretation rules and guidelines)** which make up the data set [Page 603];

(d) source for defining the source **(listing of users and the data items owned/controlled by each user)** of the data set [Page 605];

(e) management for defining a person or entity responsible for managing **(maintenance and integrity of the data item values)** the data set [Page 603];

(f) access **(access control)** for defining which business entities may access the data set [Pages 52, 506-509]; and

(g) control metrics for defining an integrity protocol **(isolation, encryption techniques)** for the data set [Page 52].

As per claim 6, Everest teaches the data structure of claim 5 wherein each data set additionally possesses a retention period **(useful life)** attribute for defining the amount of time that the data set is to be retained within the data structure [Page 603].

As per claim 7, Everest teaches the data structure of claim 5 wherein each data set additionally possesses a dependents attribute for defining distributed business departments who require data items within the data set to carry out their respective business processes **(relationship to other data in the database, relationship to other entities in the system)** [Page 603].

As per claim 8, Everest teaches the data structure of claim 7 wherein each data set additionally possesses an update frequency **(frequency of generation and change)** attribute for defining the rate at which the data set is to be updated [Page 603].

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ullman teaches basic principles of database and knowledge based systems.

C.J Date teaches an introduction to database systems and system architecture.

Leo Spiegel teaches the benefits of streamlining corporate databases.

Dimitrios Georgakopoulos et al. teaches the concept of a Dependency Management System (DMS) that monitors dependent objects, evaluates object consistency, and schedules and controls consistency restoration transactions to keep dependent objects within acceptable levels.

Alvaro Monge teaches the benefits of integrating information from a plurality of information sources. Monge also teaches the Smith-Waterman algorithm that is used on data cleansing and purging databases of inaccurate and inconsistent data, making the remaining data useful for other tasks, such as data mining.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Choi whose telephone number is (571) 272 6971. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PC
May 27, 2005

Susanne Diaz
SUSANNA M. DIAZ
PRIMARY EXAMINER
AU 3623